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ORIGINAL ARTICLES.

THE QUALIFICATIONS OF THE GOOD PHYSICIAN.*

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The superior character of the address, its unusual excellence, and its peculiar applicability to the profession of all times and places, impels the REPORTER to present it to physicians of this generation. Permission was asked and obtained of the author to here reproduce it.—ED. REPORTER.

If the powers and faculties of the human mind were perfectly symmetrical, and in a state of equilibrium naturally, it would still be a great and lifelong work to improve and carry them on to a more perfect development. How great then the necessity, in its present condition of irregularity and one-sidedness, that watchful, thorough, and persevering self-culture should be pursued by you, in order that you may come up to the full measure of usefulness in the profession to which you have devoted yourselves.

Hitherto, you have been under instructors operating from without, informing you of facts and principles necessary to fit you to begin your professional career, and have been mostly dependent upon them for ideas and opinions.

But you are now to be thrown mainly upon your own resources. Your communings are to be chiefly with yourselves.

Your own intellect and heart are to be brought to bear upon the ever-varying circumstances around you, in the pursuit of a calling which, if properly followed, must necessairly keep them in constant and active exercise. The first requisite to a judicious and effective self-culture, is, thorough self-knowledge; and this is to be attained by habitual self-examination, and constant watchfulness of the workings of our intellectual and moral processes.

Self-knowledge, in its perfect and absolute sense, is of all knowledge the most difficult of attainment, but a good degree of it is within the reach of every one who earnestly pursues it.

But in order to do this, it is necessary to divest oneself of vanity, self-conceit and self-pride, and to admit to ourselves, that in the workings of every human soul there is much that is defective, much to be restrained, and many things

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to be fostered and guided. Self-examination, and self-correction, and improvement must go hand in hand all our lives, for we shall find, that however many may be our victories, and whatever advances we may have made, time and circumstances will be continually producing new causes for renewed exertion.

It would be impossible, and it is unnecessary, for me to point out all the defects to which you may be liable, or specify all the instances in which genial nourishment or thorough pruning may be required. But I will mention briefly some of the more important, leaving it to each individual to apply, and carry out the general principle, in his own case.

One of the most common, and perhaps the most fatal to true success, is, a natural or habitual defect of the faculty of investigation, whether applied to the phenomena of individual disease, and the operation of medicines, or to general characteristics of diathesis, and epidemic and endemic influences, and the widely extended field of the mysterious working of the various diseases incident to human existence, and the unnumbered causes influencing them.

Whatever may be the original or present cause of this want in the intellect of any physician, he should arouse himself for its removal, or relinquish at once a pursuit which he cannot follow with innocence to himself or safety to those who might unfortunately confide in his skill.

Of course it is not to be expected that all will be equally gifted with this important faculty; for both nature and education will make men to differ in this as in other respects; but no one can be essentially defective in it, and expect success. Happily, this is greatly susceptible of cultivation, and the comparative want of it is not hard to be discovered by any one who will watch carefully the natural tendency of his mind, and observe whether he is inclined to search and examine, or jump at conclusions, and take things for granted.

The mortifying discovery of radical or habitual defect of intellect, must precede in this, as in all other cases, any decided effort towards improvement, but that very discovery is a great and important first lesson, and the mere setting out is a good way on the road. Much may be done to strengthen the capacity for thorough investigation, by turning the mind to the study of nature in other respects than these connected with the proper science of medicine; and whoever becomes earnestly interested in the nature and habits of the animal and vegetable world around him, as developing constantly before his eyes, will find himself improving it spontaneously, and the cultivation of a taste for these things will not only be useful, but a fruitful source of simple, unalloyed pleasure.

And here I would impress upon your minds the importance of cultivating the habit of observation—of keeping your eyes and ears open. It is surprising how much more one person will see in a given space than another, from having the faculty of observation, by nature or education, or both these, in a state of superior development. The observing faculty is not only capable of general improvement, but of special bias; which last is well if it does not become excessive; but we must take care that we do not come to see the thing we wish or expect, whether it be there or not. There are some who are not especially deficient in the ability to investigate thoroughly, but neglect it from mere laziness. To such I can only say, repent and convert yourself, for the enemy of all righteousness would be no more out of place in Paradise, than a lazy man in the profession of medicine.

But he who is conscious of natural or educational deficiency in this particular, should form the habit of bending his mind to the careful examination not only of the diseases which he may be called to treat, but also the various natural phenomena that are everywhere presented to his observation; and he should investigate nature in all her varied and interesting processes going on around him. Thus he will be qualified not only to form promptly a correct opinion of the nature and essential characteristics of diseases, but will estimate truly the result of his efforts to effect their cure.

The ability to generalize facts already obtained or observed, is of the greatest importance in the making up of a good physician; and without it, the mind is liable to be in the condition of an overloaded stomach, that has not power to digest its contents. This, too, is greatly

susceptible of improvement, and may be almost created by persevering effort.

To observe and analyze, to collect and generalize, should become a second nature to the physician; and his mind should be so trained and accustomed to the process, that it will act, as it were spontaneously.

There is scarce any limit to the number and variety of objects and circumstances that present themselves for the observation and investigation of the ordinary practitioner, to say nothing of the vast undiscovered region that invites the special searcher into the yet hidden secrets of the deep and comprehensive science of medicine. Not only is it necessary to diagnosticate individual diseases and cases, and understand and appreciate their general and special characteristics, but at every step, and on every hand, are presented subjects which, though of a more general nature, are no less important and essential to a large and continuous success.

The diathesis of a given period or region; the characteristics of a prevailing epidemic; the effect of epidemic influences upon ordinary diseases, or upon special endemic diseases; the effects of local endemic influences upon epidemics; the effect of peculiar local causes in extended or circumscribed neighborhoods upon the general health and constitutional stamina of the inhabitants, and in producing or modifying their diseases; the effect of hereditary tendencies, and family and constitutional diathesis, and of occupation and modes of living, are some of the questions that must be met and examined continually, and their right solution must influence, more or less, the daily practice of every truly successful physician.

Self-possession is another quality very essential, in fact indispensable, to the physician. The coolness and collectedness which come from long and careful mental control, are the most reliable, and their exhibition in trying emergencies will ever command the admiration of mankind.

You will often be placed in situations where everything around you has a tendency to excite you and throw you off your balance; but, when the safety of the patient depends not only upon your keeping cool yourself, but also upon your being able to quiet the tumult around you; and he is not the man for the place who cannot calmly look all the danger in the face, and adopt his measures, with promptness and decision, but without hurry and excitement.

There is many a case where impulsive precipitancy will jeopard all; calm self-possession save all. But, on the other hand, there are some minds so tempered that their organic sin is a want of energy and decision; and the tendency with them is to let the critical moment go by —the favorable and important opportunity slip—and they are never aroused in season, never ready till it is too late. Boldness, when you know whereon you stand and have measured well your antagonist, is a great virtue; but do not mistake for it rashness, which is an unpardonable vice. Carefulness is not incompatible with boldness, energy, and promptness; but do not mistake inaction or timidity for it. It is an excellent rule to do nothing when you do not know what to do, but you should question yourself closely whether you are not justly blamable for not knowing.

There is a class of practitioners of whom it is said that they never do any harm, if they do no good, they are so careful; but while there are probably more sins of commission than omission in the practice of medicine, yet I can see no reason why the guilt of the former should be deemed greater than that of the latter.

There is great need that you cherish a proper self-respect, and cultivate a manly independence of character. It seems to me that no one thing has done more to belittle the profession of medicine than a manifest tendency in many of its members to sacrifice their own proper manliness to the one idea of success in getting and retaining practice; the result of which has been that some communities have come to look upon the physician as their very humble servant, greatly beholden to them, dependent upon them for his daily bread, and bound to think and act just like all his patrons, or not to think and act at all. I would by no means advise you to be active, loud-talking politicians, or valiant defenders of some hair-splitting theological dogma, or meddling with the

thousand issues that float on the surface of popular opinion, or without discretion casting pearls before swine at every opportunity; but I would have you just what any gentlemanly, high-minded man would be in any other business. Do not sacrifice anything that properly belongs to you as a free man, in the best sense of the term, for the sake of pleasing anybody. The community in which you live will be prone to forget many rights that should be very dear to you, unless you quietly, but firmly, assert them. And I cannot forbear to mention one that should be especially precious to you all—the right of the first day of the week as a day of rest and religious worship. Not that you should neglect any important case on that day; but in some communities, unless you teach them better, you will have business heaped opon you that should have been done during the previous week, or could be deferred without detriment to the succeeding secular days; will be treated as if you were entirely without the pale of the Christian church, or belonged to that mythical order of beings that have very useful bodies, but no souls. If there is any special class of men to which the Lord's day should come with its healing, soothing, soul-elevating influences, it is that the business of whose members makes them daily conversant with scenes that sadden the spirit; that see the brightest earthly hopes constantly being wrecked in the breakers of the dark river; and the spark of human life going out into thick darkness, that nothing but the religion of Him who has said "I am the Resurrection and the Life," can penetrate and dispel.

There is no calling in which a high sense of honor is more necessary than the one which you have chosen; and without an ever-watchful cultivation of it, you will find many a temptation too strong for you; and in after life you will find your memory burdened with errors and sins, which, however much you may regret, you cannot wipe away.

Whatever is dishonorable in your intercourse with the community, in your relation of physician to those who place their confidence in you, or in your intercourse with or relation to your brethren of your profession, will leave its worst effects upon yourselves.

You have high trusts committed to you; do not betray them. You have choicest treasures confided to you; keep them faithfully.

Always remember, that whatever degrades any member of the profession, does, in a measure, affect the whole.

Never allow an unfounded aspersion of another physician's character to circulate by your silence, be he ever so great a rival, or whatever be his shortcomings towards yourself; and in all things try to do as you ought to wish to be done by.

I would have you cultivate a sincere and unselfish love of your profession.

If you have chosen medicine with a view to mere pecuniary emolument, or for its respectability, or for any other common motive, or if having been thus actuated in your choice at the outset, you have not found growing up in you a higher feeling with regard to it, I advise you to pause at the threshold, while your age and habits will admit of your adopting some other business, for you are utterly unfit for this.

The interests connected with the art of healing are so varied, the responsibilities so weighty, the occasions and means of doing good so numerous, and the liability to do evil so great, that no mere mercenary motive will ever suffice to make the higher and desirable type of the physician.

There must be love of medicine as a science; there must be love of it as an art. There must be a heart to exult when a new truth is discovered, when a fresh victory over disease is achieved, when the load of human suffering is lightened ever so little.

A man that would think more of receiving a large fee than of having carried a patient safely through a dangerous disease, or saved a life, however humble, by a successful operation, is not fit to be a physician.

The man that would value higher a popular reputation, no matter how obtained, because it led to increase of business and wealth, than the consciousness that he has been made an instrument in the hand of God of achieving great good in the practice of his profession, is not fit for a physician.

Seek to become thoroughly acquainted with your profession in all its aspects;

for it is only by this, that you can appreciate it properly, and love it as you ought, and the more you know of it, and of the noble and devoted men who have been found from time to time in its ranks, the stronger will be your attachment to it, and the firmer will be your determination to do nothing that shall disgrace it.

A cardinal virtue in the good physician's character, is kind-heartedness.

It has always seemed to me a dreadful thing to grow cold and stony-hearted, to be unmoved by the sorrows and miseries of our fellow sojourners here, and to be doing one's bare duties in a frigid and unsympathizing manner, yet, there is danger of this.

If we are always looking on the wrong side of things, if we move among our fellows with soured, and prejudiced, and suspicious feeling, it will all be reflected back upon us. We must habituate ourselves to look upon our fellow-man, not as being his judge, but in a certain sense as his saviour; and wherever we see the image of our Maker, however fallen and degraded, there we must see an object of commiseration, to be pitied and looked kindly upon, and spoken to with gentleness and love.

I cannot conceive of a human being, lying sick, weak, and suffering, who should not be treated compassionately and tenderly by his physician.

But do not mistake me as recommending nervous weak-heartedness, which may confound with true tenderness and kindness of feeling; for they are not only unlike, but almost incompatible.

The truly brave are truly gentle and kind, and often we see the tender and sensitive mind exhibit a firmness and reliability truly admirable, where coarser and rougher natures are unmanned, unreliable.

As an example in proof of the perfect compatibility of the quality under consideration, with strength of nerve and resoluteness of mind, I cannot do better than refer you to the character of the honored and loved Professor who was present on a like occasion to this one year ago, but who has since closed his active and useful life, and, we trust, has entered upon an infinitely higher and more glorious career in the life which is eternal. That he was strong of nerve and resolute of purpose many of you have seen; that he was kind of heart and gentle of spirit many of you have known and experienced; and if other proofs were neeeded it would be sufficient to remember that he was the father of that sainted daughter who also graced with her presence our last year's gathering here, but is now reunited with her beloved parents in the land of the blessed.

Undoubtedly you will meet with ingratitude and injury, where you should have received thankfulness and just appreciation; and if you allow yourself to treasure up, and dwell upon, all the real and apparent wrongs that you receive in your professional intercourse with the community, made up as it is of an almost endless variety of character and dispositions, you will, ere you are aware, carry the marks on your countenance, and feel their effects settling down into your heart, drying up the springs of kindness and sympathy which should be ever welling up there toward all the members of our common fallen humanity.

But if you cherish kindly feelings, look upon all, whatever their character, and however great their ingratitude, as objects of compassion, thrown in your way by your Creator, for you to do them good, and in doing them good, to experience a reflex good in your own soul. If you go steadily onward, gently sowing good seed in every soil, "casting your bread upon the waters," you will find roses blooming all along your path, where you perhaps expected thorns alone, and where you surely would have found them if you had pursued an opposite course.

And many a time, in after years, you will find that your kind words have been remembered, your good offices appreciated, and that the little seed of gratitude germinated in some poor heart, has brought forth fruit not only towards yourself, but towards a kinder and better friend long forgotten and neglected.

But this quality cannot be counterfeited. If it is not at the fountain, no artificial sweetening will make the waters any the less insipid or bitter. Nor need you be solicitous with regard to its outward expression, for only be

sure that all is right within, and its exhibition will be spontaneous, and in many cases will be a more efficacious balm than any that could be selected from the most comprehensive pharmacopæa.

As a crowning qualification for a good physician, cultivate sincere and earnest piety, piety that will control all your actions and all your intercourse, professional and otherwise; sanctifying all your knowledge, fitting you for the highest usefulness here, and giving you a well-grounded hope beyond the grave. Finally, in all things let your watchword be improvement; look forward to a life of constant progress, in which all that is good in you shall be more and more developed and matured, and all that is faulty and evil in you shall be struggled against and overcome; and when it shall close, whether sooner or later, you will have the consolation of feeling that you have not lived in vain, and that many grateful hearts shall bless your memory.

SOME USES OF CIMICIFUGA RACEMOSA.

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If reports in the medical journals be fair index of the mode by which chorea is generally treated, the use of black cohosh is too much neglected. Fifty years ago the most successful practitioner of my acquaintance declared that cinchona was no more certainly curative of intermittent fever, than was black cohosh of the choreas occurring adolescence, or in women when associated with menstrual irregularity, while in childhood, it stood easily first of all remedies.

My personal experience corroborates entirely his assertion. The only failures I have seen (excluding cases in infants) have been where the chorea supervened an attack of acute rheumatic endocarditis. In all such cases, the chorea persisted in spite of all treatment, until death, which occurred from eighteen to forty-two hours after the onset of the chorea. In ordinary cases of chorea a moderate degree of anesthesia will control movements for a time, longer or shorter. In these fatal cases, deep surgical anesthesia prevented general movements of the trunk and limbs, but did not stop the twitchings of single muscles or small groups of muscles and before consciousness returned the movements would be as general and as severe as ever.

It is reasonable to infer that the shorter the duration of the attack, the less likely is it that the heart will be permanently damaged. Hence, a remedy that will control the manifestations in a few days, should always be given preference over a course of treatment which requires four to six weeks to secure the same results.

When we consider the rapidity and certainty with which chorea is cured by black cohosh, which, in adminstration, is entirely devoid of danger, or of any injurious effects—the only possible disagreeable effect is a not very severe headache of short duration—and contrast it with the treatment by arsenic, which must be long continued, is uncertain at best, results in gastric derangements commonly and in multiple neuritis not infrequently, it seems strange that medical authors continue to tell us that, "the time-honored treatment by arsenic is the best that can be pursued."

Surely, no one who has given the two modes a fair competitive trial, could reach that conclusion. The only reason I can imagine for this persistance is, that no Dutchman recommends cohosh. Medical authors do not seem to be very different from the mass of the profession in proneness to follow a leader. I once saw a flock of about one hundred sheep, running through a narrow pass. The afternoon sun caused the trunk of a tree to cast a dark shadow across the white pathway. When the bellwether came to it he jumped over, and every last one of

the flock jumped it after him. The next day was cloudy and there was no shadow. The sheep was going leisurely through the pass, but the bellwether, and all the flock, jumped the place as before. I asked the shephard how long they would continue to jump the place. He said until they had a new bellwether, or the ground was covered with snow. It would not sound well for us to be heard praying for the death of a medical bellwether, but we might pray for an early fall of snow.

After all choric manifestations have ceased, the dose may be somewhat diminished. But the remedy should be continued for some time, not merely to prevent a return, but for its action on the heart. Choric murmurs, whether organic or functional, are more certainly thus removed than by any other treatment. Some of our text books tell us that, "chorea is essentially a disease of the nervous system." They also tell us that, "the subjects of hysteria are characterized by a peculiar instability of the nervous system." The real cause of the condition of the nerve centers is no more known in the one disease than in the other. A list of the remedies recommended to cure one of them, includes those recommended to cure the other. From this it would seem that, in both, a similar cause was acting in a similar manner on the nerve centers, and we would infer that if black cohosh proves superior to all other remedies in curing chorea, it would prove of like benefit in hysteria. Experiment has proven the inference to be correct.

It is well known that so long as the hysterical stigma can be demonstrated non-organic, all the symptoms are liable to be aggravated by comparatively slight causes. There is no drug that will cause temporary disappearance of these stigmata so quickly as tartar-emetic administered in doses that are promptly and thoroughly emetic. The number and frequency of these repetitions must be left to the discretion of the doctor, who should not be timid in using the tools of his trade. It should not be given oftener than twice a day—from that to once in two days. After their disappearance, black cohosh should be continued in full doses and for some time. If from any cause the tartar-emetic seems inadvisable, get the secretions and excretions into a condition as nearly natural as is possible, and then the black cohosh, in doses as full as the patient will bear, seldom will fail to cause permanent disappearance, though not nearly so quickly as the plan first mentioned.

In girls, retarded menstruation with dysmenorrhœa, often has a rheumatic taint as one of its causative factors. When that is the case, the following prescription will be found effectual:

℞ Iodid Potas . . . . . f. ʒ ss
Syr. Simp. . . . . f. ʒ iij
Syr. Sarsap. Co. . . . . f. ʒ iv
Fl'd. Ext. Black Cohosh . . f. ʒ j

M. Sig. A teaspoonful three times a day, until menstruation is regular. Then take it two weeks of each month, beginning ten days before the expected return of the menses. Continue it each month until menstruation is painless.

In a good many of these cases it is well to add to this prescription, four to eight grains of red iodide of mercury, which is by far the best preparation of mercury for use in all chronic congestions of the pelvic organs of women. I am aware of the objections the pharmacists and chemists can make to this combination, but it has three points in its favor to two against it. In its favor are cheapness, palatability and efficiency. I know of no single prescription which combines them all in a higher degree. True, salicylate of soda will alleviate the pain of rheumatic dysmenorrhœa somewhat quicker than the black cohosh, but it is not curative to the same extent, and it is better adapted to mature women than to girls.

For emansio mensium the blue cohosh, generally, should be substituted unless the rheumatic complication is well marked. One decided objection to the use of salicylate of soda for these conditions is, that after having been taken for a week, no further benefit can be got from it without a tolerably long intermission. Women of the laboring class furnish a large majority of dysmenorrheic cases we are called on to treat, and they are far more likely to take a single medicine regularly, than they are to take two or more. But palatability must not be neglected or they will soon drop it. The doctor should also bear in mind that many of them must deny themselves comforts and conveniences, if not necessaries, to save money to buy

medicine, and he who, merely to be ultra-scientific, prescribes for them an expensive medicine when a cheap one would fill all the requirements, sins against the poor, which is next to, if not a part of the sin which we are assured shall never forgiven.

Many doctors make it a routine practice to administer blue cohosh to their pregnant patients for some weeks during the latter part of gestation, believing that it faciliates parturition. I have often prescribed the fluid extract of black cohosh, five to eight drops three times a day, during the last month of gestation, for women who had previously taken blue cohosh, and if the judgment of the patient is to be relied on, the black cohosh is by far the superior drug for this purpose.

COMMUNICATIONS.

THE ABUSE OF ALCOHOLIC STIMULANTS IN PRACTICE.*

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I am well aware that alcohol in some form has long been the stimulant mostly relied upon in the practice of medicine —that it is a generally accepted doctrine that alcohol is a stimulant to the digestion, a cardiac tonic, a conservator of tissue, capable of increasing and sustaining the vital energy, and therefore indispensable in the treatment of all low grades of disease, shock, collapse, etc. But there have been many accepted doctrines in the history of medicine that have proven to be fallacious. Many long-used remedies have been dropped and forgotten, their places being supplied by other and better agents.

I began the practice of medicine with the popular belief that in all low forms of disease alcohol was the all-safe, all-potent, and only stimulant to be used. Experience has taught me a different lesson, and the more experience I have the stronger my convictions grow that this too general and too excessive use of alcohol as a stimulant in practice is erroneous. With experience our ideas change. They will change. And "many pet theories which we to-day look upon as being the very foundation-stones upon which our noble profession rests will crumble to dust." Many of our cherished idols have fallen and humanity has always been the benefactor. I do not claim to be in advance, but only following the lead of others—only in harmony with the tendency of the medical profession of the day. With our improved therapeutics, alcohol is justly losing ground as a medical agent. Strychnine, nitro-glycerine, digitalis, caffeine and others are found to be more reliable, more powerful and less harmful agents. The more these remedies are used the more they grow in favor, and the less is the necessity for the use of alcoholics.

For a long time alcohol has been, and even at the present time is, the only stimulant administered by the general practitioner. It appears to be the only stimulant at his command with which he is at all familiar. Notwithstanding its many pernicious effects in the human economy, if there be heart-failure, he gives alcohol; in profound coma, alcohol; in chloroform narcosis, alcohol; in feeble digestion, alcohol; in flagging nerve-force, alcohol; in threatened exhaustion from post-partum hæmorrhage, alcohol; during the crisis in pneumonia, alcohol; in the exhaustion of typhoid fever, alcohol; in every critical condition, where the patient is vibrating between life and death, alcohol is his first and only thought. Not content with this reckless use of a bad agent, like the man who took his dram first to get

*Read before the North Carolina Medical Society, 1895.

ahead of the snake-bite, he must needs forestall all these expected evils by the early use of alcoholic stimulants in almost every case of sickness. I respectfully assert that this frequent and excessive use of alcohol in practice is not needed. Even where a stimulant is indicated, we have other more reliable stimulants that are free from any of the hurtful influences that alcoholics exert.

It is in typhoid fever that alcohol is, perhaps, most used; and for that reason it is here that it likewise does its greatest amount of harm. With our advanced knowledge of the specific nature of typhoid fever and of the use of specific remedies in combating it, few cases properly managed will need any stimulant whatever. It is claimed first, for alcohol in this disease, that it stimulates the function of digestion. I grant that a very small quantity, not more than one teaspoonful at a dose, may aid digestion. But this is far below the quantity usually employed in fevers, one-half to one ounce of whiskey or brandy every two or three hours being usually given. This quantity materially interferes with, or entirely arrests, the process of digestion by precipitating the pepsin, the natural ferment of the gastric juice. Strength can only be supported for any considerable length of time by food, and by this excessive use of alcohol we deprive the patient of this all-important support, without which he cannot long be sustained. But further, alcohol flushes the capillaries of the stomach just as it does those of the skin. Where there is already a smouldering congestion of the mucous coat of the stomach, it takes but little to light up the fire of acute inflammation. The continued use of such quantities as are given in low fevers often produces this complication. Many patients that are making a feeble, yet hopeful, struggle for life, are thus deprived of natural food; and as they grow weaker and weaker, this mistaken conservator of strength is still pushed, in quantity and frequency, till the congestion and then gastritis are added to more severely tax the already failing vitality. If alcohol had no other hurtful effect, because of this alone it should never be given in such quantities as are prescribed in low fevers, such as typhoid. It was this interference with digestion and frequent production of gastritis that caused me to discard it in low fevers.

Its doubtful physiological action and harmful effects have only just begun when it has destroyed the power of digestion and produced a most serious complication in the form of gastritis. As evidence of its doubtful and even hurtful utility, I quote from Ringer's Therapeutics.

"The following rules," he says, "regarding the use of stimulants in fever, were laid down by Dr. Armstrong, and will receive the assent of all practical men":

"1. If the tongue become more dry and baked, alcoholic stimulants generally do harm; if it becomes moist, they do good.

"2. If the pulse become quicker, they do harm; if it become slower, they do good.

"3. If the skin become hot and parched, they do harm; if it become more comfortably moist, they do good.

"4. If the breathing become more hurried, they do harm; if it become more and more tranquil, they do good."

He says further: "These excellent rules might be supplemented by a fifth —Alcohol does good when it produces sleep and quiets delirium." On the other hand, as Bartholow says: "Does harm when it increases fever, exaggerates delirium and induces coma vigil."

Here we have a complete set of rules for our guidance laid down by our best medical authors. Was ever a set of rules more replete with uncertainty or more suggestive of harm? You are not assured of the certainty of any single physiological action. In every case you are just as liable to kill as to cure your patient, and in no case are you told which it is going to do till you have tried it. Would you risk *your* life, or even your money, upon such doubtful security? Is it right to jeopardize the life of your patient with such an unreliable remedy, fraught with so many chances of peril? You can never know till you have tried it just what it is going to do—whether it is going to send your patient up or down. The time lost in the trial may be the turning point for the worse in his fate. We have all seen

cases in which a day passed meant recovery or the contrary. In such extremities it is not safe to be experimenting with a doubtful stimulant. Or, worse yet, the downward impulse given by some untoward action of this uncertain agent, when given on trial, often puts the patient beyond the hope of recovery. Even when the action is beneficial at one or more points, it is often doing irreparable mischief in some other equally vital parts. It may be stimulating the digestion, but it is also accelerating the heart's action, increasing the fever and greatly increasing the expenditure of vital energy, producing the very exhaustion that the doctor is endeavoring to guard against. If it is slowing the pulse and relaxing the arterial tension, it is also arresting digestion, producing congestion and inflammation of the mucous coat of the stomach. Hence, I say, if it is doing good at one point it is doing mischief, maybe insidiously, at some other equally vital point. It is in these cases of low fevers that the doctor is called upon to make his hardest and best fight for the life of his patient. It is not good military tactics to go into the battle with only such doubtful weapons in his hands. He has to do battle with a foe that taxes and often defies every resource at his command—what folly to leave in doubt the action or potency of the ammunition! Why reduce the chances of success by having in your hands only an untrustworthy weapon!

But what should we do? The answer is simple and easy. Use specific remedies for specific purposes. When a food is needed use a food pure and simple. If the digestion must be aided, use dilute muriatic acid and pure scale pepsin, enough to peptonize the amount of food that should be given. If an antipyretic be needed, use the sponge, the bath or other antipyretic properly fortified; for alcohol short of lethal doses never reduces the temperature more than 0.4 or 0.6 of a degree. If the heart's action must be slowed and strengthened, use a heart tonic *per se*—use digitalis. If a powerful nerve stimulant be needed to spur the flagging energies, to maintain the heart's action, to sustain the respiration, to revitalize the falling senses, use strychnine. It will not fail you, will not cripple your prostrate patient in some unexpected way, will rescue him from the very "shadow of the valley of death" as no other remedy can do it.

One of the common and most dangerous uses of alcohol as a stimulant is during hæmorrhage. It is customary when hæmorrhage occurs, either by accident or in the process of disease, to administer whiskey or brandy under the false idea of supporting the vital powers. I desire to condemn this practice with all the emphasis in my power. In every form of hæmorrhage, where the bleeding has not been arrested as by ligature, alcohol only increases the danger by increasing the hæmorrhage. Alcohol relaxes the arterial tension and at the same time increases the force and frequency of the heart's action. It destroys the contractile power of the middle muscular coat of the arteries, preventing this natural means of arresting the flow from the several blood-vessels, and also by increasing the heart's action sends a greater and more rapidly flowing volume of blood to the severed vessels, thus washing out and preventing the formation of a clot, the most effective possible check upon the flow. If a stimulant must be used, it should be one that increases the arterial tension at the same time that it increases the heart's action. The argument does not stop here. The action of alcohol being such as to contra-indicate its use where hæmorrhage already exists, the same physiological action maintains where hæmorrhage is likely to occur, and for the very same reasons it is contra-indicated there. This abuse is most common in typhoid fever where hæmorrhage from the bowels is a frequent and dangerous complication. When the arterial walls are weakened at certain points by ulceration, their contractile power lost, admitting of over-distention, the arterial resistance to the force of the heart's action lost, allowing the entire force of the volume of blood sent from the heart to be exerted upon the weakened points, rupture and hæmorrhage must of necessity be more liable to happen. Alcoholics being in such general use in typhoid fever, who can say how many cases of hæmorrhage may or may not be due to alcohol alone? We are cer-

tain of the fact that where hæmorrhage is liable to occur the use of alcohol increases that liability. The complication is such a grave one that the necessity for alcohol, and for alcohol alone, should be most urgent to justify its use. Since we have other stimulants that can perform all of its good offices without any of the bad, its use is all the more unwarranted. Such agents we have in digitalis and strychnine, which strengthen the heart-beats and at the same time increase the arterial tension.

The too general use of artificial stimulants in pulmonary diseases is abusive mainly because we have other better stimulants. It has perhaps done much good in this field, but its too general use is doubtful. In pulmonary phthisis, during all the long years that alcohol ranked among the best remedies, the mortality steadily kept up to 100 per cent. It is only since we have learned of other remedies that we hear of a percentage of cures. I can do no better here than to quote from Dr. T. J. Mays on the use of strychnine in these diseases. He says: "This drug gives better practical results in the treatment of pulmonary diseases than any other single remedy at our command. It has a more powerful stimulating influence over the nervous system than any other drug in the materia medica. Besides its general action, it has a special influence on the nerve supply of the lungs, heart, stomach and intestines. It has also the faculty of multiplying the corpuscular elements of the blood. A combination of such properties makes it apparent why it should possess such beneficial therapeutic effect in the diseases under consideration. Bronchitis, whether acute or chronic, is much benefited by strychnia. It checks the cough, diminishes the expectoration, improves the appetite, puts to one side the whole constitutional relaxation and feebleness present, especially in the chronic form of the disease. It is one of the most useful agents in the treatment of acute pneumonia. I know of no disease more eminently benefited by strychnia than pulmonary consumption." This authority is so high and the facts set forth so explicit, that no commentation on my part is needed. I only ask of you to try strychnine in the place of alcohol in all pulmonary diseases, and thus be convinced.

In shock, alcohol is a valuable remedy, meeting well the indications. But for convenience of administration and in cases of profound shock, where whiskey or brandy could not be swallowed, strychnine hypodermically at once suggests itself. "Its action is analogous to electricity. It discharges its force into the system in a manner similar to electricity." "If shock be severe and collapse threatened, strychnine takes the first rank. It should be given in large doses, not less than $\frac{1}{10}$ grain, and repeated several times, at short intervals, if needed."

In chloroform narcosis, due credit must again be given to alcohol. But I must earnestly advise against its use as a preventive of chloroform narcosis, where the anæsthesia is to be continued for a considerable time. The secondary action of alcohol is similar to the action of chloroform, and where the anæsthetic is to be continued for some time the secondary effect of the alcohol might come on and only deepen the chloroform narcosis. The dictum of Dr. Stephen Smith, an eminent surgeon—"Send your patient to the operating-table drunk"—is certainly abusive use of alcohol, rife with danger and to be condemned. Even here strychnine, given hypodermically as a preventive or in the emergency, is more powerful, more convenient of administration, and safer.

The same is true of strychnine in threatened collapse from any cause. It is the most powerful cardiac and respiratory stimulant. Being readily given hypodermically, it acts promptly, and can be given when whiskey or brandy cannot be ingested. The more generally it becomes used, the more confidence we have in its use, and the wider its range of usefulness expands. In small doses it is a most valuable tonic in many atonic conditions. In larger doses it gently stimulates the flagging forces of nature when they threaten cessation of action, renewing and sustaining the vital energies in the most severe wasting diseases, in a manner more in harmony with nature than any other agent. In heroic doses, next to electricity, it is our most powerful vital incitant, invaluable in warding off and

overcoming shock, collapse and chloroform narcosis. Like the electric flash, that kills at a single stroke, it is equally potent for good when used in proper limits. Just as the electric motor is destined to supplant the steam-engine as a motor-power in the world of mechanics, strychnine will take the place of alcohol as a stimulant in the medical world—not entirely, not all at once, but none the less surely.

References: — (1) Bartholow, Materia Med.; (2) Ringer's Therapeutics; (3) Bartholow, Materia Med.; (4) Ringer's Therapeutics; (5) Col. and Clin. Record, Nov., 1893; (6) Dosimet Med. Rev., Dec., 1894; (7) Geiger, Int. Journal Surg., Nov., 1894; (8) N. S. Davis, M. D., Brief, Nov., 1891; (9) The Asclepiad, Vol. viii., Nov. 29, 1891; (10) Editorial in Int. Jour. Surg., Nov., 1894.

INSOMNIA: THE NATURE AND PHYSIOLOGICAL OFFICES OF SLEEP.*

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There is no single function of more importance to the organism than that of sleep. This importance of sleep has steadily increased with the march of civilization; for in direct proportion as man has left the barbarous, with its infantile states of feeling and intelligence, he has subjected himself to new burdens of heart and mind. This is but another way of saying that his nervous system has become more delicate, and therefore more breakable. It is true that so long as the burdens of intellectual advancement rested upon the few—as in the Greek and Roman republics, and many of the modern European states until quite recently—there was no noteworthy development of nervous oversensitiveness. This apparently contradictory phenomenon is easily accounted for by the fact that there was but a limited degree of competition possible where the demand for brain-workers so immeasurably exceeded the supply. With us, however, all this has changed; for with the practically universal spread of knowledge has come a competition among the learned classes which, though on the whole productive so far as the gross intellectual output is concerned, has proved, and in future will doubtless continue to prove, more or less baneful so far as the individual is concerned. This hurtfulness is largely contingent upon emotional strain, or what is still worse, upon the necessity of performing intellectual work while the affective faculties are depressed by that complex of definite or indefinite apprehensions which we allude to conventionally as worry.

To counteract this worry, this ever-present increment of emotional wear and tear, various remedies have been recommended. Chief among these is the injunction to "distract" one's thoughts from the sombre by the aid of amusements. It is a matter of experience, however, that amusements alone will not suffice to rejuvenate the mind. Indeed, it often happens that after protracted indulgence in diverting pleasures the sense of weariness and depression is even greater than before. The reason for this is that the jaded side of the cerebral mechanism has not undergone that renewal of vigor which is necessary to a resumption of mental resiliency; the mind has been diverted, but not repaired. This question, then, at once suggests itself:

"How are we to put the mental mechanism in such a position that this repair of previous waste can go on most advantageously?"

The answer in a few words is, that inasmuch as consciousness itself entails a never-ceasing output of mental and emotional vigor, the opposite state of complete unconsciousness is the one great essential to cerebral repose and

* Condensed from the *Christian Advocate.*

the repair which accompanies it. Such an abolition of consciousness is the chief office of sleep, which, as we now know, is not designed for the rehabilitation of the grosser tissues composing the muscles and viscera, but is rather intended to afford opportunity for the repair of those immeasurably finer structures composing the thought mechanism. What, then, is this sleep which in its perfect form does so much for the jaded brain-worker?

To begin with, sleep may be defined as that state of the central nervous system in which the higher centres are, to a great extent, in a condition of physiological quiescence, the process of integration (repair) predominating meanwhile over those of disintegration (waste). In its most profound form, and probably in its most perfect manifestation, there is a total cessation of the higher physical functions, so that mentalization and emotionality are practically at a standstill. In its less ideal phases, however, as we all know, sleep is marred by the occurrence of dreams, and probably also by an unconscious form of cerebration. This is one of the reasons why persons whose sleep is habitually of this imperfect type awake comparatively unrefreshed. We shall return to this point when discussing the derangements of sleep and their management. Another peculiarity of sleep is that during its continuance the automatic and reflex centres, as they are called, remain active; so that the functions dependent thereon—such as the circulation, respiration, digestion, secretion, etc.—are carried on uninterruptedly. Still another feature of the sleeping state is the decline in the amount of oxygenated blood circulating in the brain, a phenomenon which is at least partially responsible for the decline in cerebral temperature which has been observed during sleep.

The heart's action, as may readily be imagined from the foregoing, is retarded during sleep, and the same may be said of respiration. Finally, as already indicated, everything conducive to expenditure of cerebral force is eliminated or curtailed, so that during sleep the amount of energy hoarded in the brain cell vastly exceeds that expended. To summarize the argument, we find then that the essential factors of sleep are these:

1. The explosive material previously stored in the brain cell is exhausted, or largely exhausted, by the activities of the hours of wakefulness. The replacing of this expended material is the chief office of sleep; and, therefore, we find

2. That a gradual reaccumulation of explosive material takes place in the brain cell during the hours of physiological unconsciousness.

3. As the explosive energy of the ganglia is reduced to a minimum, we are not surprised to learn that there is a great decline in the processes of oxidation carried on in the brain cell during sleep.

4. There is a retardation of the heart's action during sleep, and

5. Respiration is reduced in frequency.

From what has been said I trust that the great fact, that the most important function of sleep is to counteract the waste in the brain cell incident to cerebration, has been made clear.

Another fact is equally apparent, to wit, that a thorough comprehension of the physiological essentials of sleep is absolutely necessary in order to obtain a rational appreciation of the various phases of insomnia and the means which have been found effective in dealing with them.

The whole question of sleep assumes additional importance when it is borne in mind that a very large proportion of mental troubles, including most of the insanities, begin with some form of insomnia.

The Editor His Poem.

Who weeps with you when you are sad, and laughs with you when you are glad, and swears with you when you are mad? The editor. Who has to be both kind and wise, and never (hardly ever) lies, and when he does, creates surprise? The editor. Who owns a heart as well as cheek, is possessed of a spirit proud but meek, and lives on forty cents a week? The editor.—*The Weekly Enterprise*, Hamilton, Va.

A monopoly is a good deal like a baby. A man is opposed to it on general principles until he has one of his own.—*Detroit Free Press.*

CLEAN MIDWIFERY, WITH REPORT OF A CASE OF UNCLEAN MIDWIFERY.*

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By clean midwifery is meant midwifery not encumbered with anything useless—perfect, complete. Its principles are simple, its practice easy, requiring the virtues, perseverance, patience, thoroughness. Its results are too well known to dwell upon, depriving child-birth of much of its former horror, robbing death of many of its fairest victims, women in the prime of life performing their office of mother and helpmate, the time of all times at which they could least be spared.

History—This dates from the time when the true pathology of diseases of the puerperium was first properly appreciated, which was the key-note to their prevention and successful treatment. In the time of Hippocrates and Galen the results of unclean midwifery were thought to be due to the suppression of the lochia, this doctrine holding sway for about twenty centuries. This was followed by the doctrine of milk-mestassis. These in turn were followed by the doctrines of inflammation of the womb, peritoneum, veins and lymphatics. Many considered it a specific infectious disease, such as typhoid fever. In 1850 Sir J. Y. Simpson published a paper entitled "The Analogy between Puerperal and Surgical Fever," which was the beginning of the modern doctrine. Several years previous to this Semmelweis asserted that puerperal troubles were common in the practice of those who examined patients after performing post-mortems, or students attending patients while working in the dissecting room. He was considered a crank, and was rewarded by ridicule, but with the advance in other branches of medical science, this branch also advanced, and to-day it is an established fact that puerperal diseases are due to germs, either putrefcctive or infective. The putrefactive germs are termed bacilli, and depend for nourishment upon some foreign proteid substance, such as blood-clots, pieces of membrane, etc.

Their excreta are called ptomaines, which are capable of absorption by the uterus and are the offending agents. Puerperal troubles due to this cause readily respond to treatment, because as soon as the uterus is cleaned out the supply of ptomaines cease and the organism, with its wonderful eliminating glands, soon dispose of the dose it has. The infective germs are termed streptococci; these possess the power of invading living tissue, and are in themselves poisonous. This germ is the cause of the true infective puerperal fever, although the putrefactive germs are found with it. These germs must get into the system before they can cause trouble. Their avenues of introduction are seven in number:

1. The genital passages, as by an examination with a septic finger, filthy clothes coming in contact with the vulva, or by the patient's scratching her vulva with a septic finger; it has been said that the water-closet has acted as a sort of infection by the mucous membrane of the vulva coming in contact with the foul emanations from the sewer.

2. Wounds of the genital passages.

(*a*) Lacerations of cervix.

(*b*) Lacerations of vagina, the base of the clitoris, is a favorite place for laceration.

(*c*) The perineum.

(*d*) The head lying in one position too long, may cause sloughing of the underlying tissue.

3. The bladder, either introduced by a catheter, or may wander from the vagina; from the bladder they may wander through the ureter into the kidneys.

4. The rectum, as by a septic syringe nozzle.

5. The breast.

6. Respiratory organs.

7. Intestinal canal.

* Read before the North Carolina Medical Society, 1895.

Having seen that there is a germ capable of introduction by the above-named avenues, and knowing the dire results which follow its introduction into the system, it became evident that if the germs were prevented from entering the system the puerperium would be robbed of its dangers. As we all know, this has been demonstrated by clinical facts. The prevention comprises clean midwifery, which involves three factors —the patient, physician or nurse, and the surroundings. The surroundings necessarily depend upon circumstances. It is those in the middle and lower walks of life whose surroundings we must modify. As to the room, it should not be too small; it should be exposed to the sun-light, if possible, and be well ventilated. If the bed has been in use long, it should be scrubbed up and sunned. A mattress should be used and all unnecessary clothes, ornaments and furniture should be moved out. For a bed-protector, there is nothing better than a piece of oil-cloth, or a piece of canvass which has previously been boiled. The bed linen is put on fresh, and then the bed is ready for the patient.

As to the patient, she should take a thorough bath with warm water and soap. She should have a copious enema of warm water and soap. The vagina should be douched with a 1 to 2000 bichloride solution. She should clean and cut her finger-nails, and when the physician has prepared his antiseptic solution she should soak her hands. She should put on fresh linen; after this an antiseptic pad should be placed over the vulva; one may easily be made by wrapping a piece of absorbent cotton or oakum in sterilized gauze, and the breasts and axillæ, after a thorough scrubbing with a boric acid solution, are to be covered with borated cotton, kept in place by a sterilized binder.

As to the physician, his hands and arms should be prepared as follows: Nails cut and cleaned, hands and arms scrubbed by means of a brush with hot water and soft-soap, then washed in plain water, next immersed in a hot bichloride solution, 1 to 2000, in which they should remain for three minutes; if they are simply rinsed it does not wet the several layers of dry, horny scales which form the stratum corneum of the epidermis, beneath which the germs may hide and remain unhurt. The hands should be allowed to dry—never use a towel; next, they should be immersed in a 5 per cent. solution of creolin, remaining for one minute. This is antiseptic and lubricant; in the lying-in hospital of the University of Maryland the rules relating to the time were very strictly observed. Some claim that it is unnecessary to use bichloride, soap and water being sufficient, but for the busy practitioner, who makes, possibly, a rectal and vaginal examination of one patient, lances a felon for another, is then summoned to a case of labor, for the benefit of his patient he should use bichloride. I mention bichloride because it is the neatest, least troublesome and among the best antiseptics. An apron should always be worn, pinned to which should be a sublimated towel, which is useful. In this connection it is well to remember that failure to carry out the minutest details in antiseptics may lead to disasters of the greatest magnitude. Remember the old expression, "*omnia ex ovo.*" Vaginal examinations should be as few as possible. The third stage of labor should be carefully managed or clean midwifery may fail. In those cases where it becomes necessary to separate the placenta from its attachment, or in any way interfere with its delivery, it should be carefully examined to see if any part has been left. At the end of the third stage a hypodermic of strychnine-nitrate, one-fortieth of a grain, should be given and a nose of ergotole or fluid extract of ergot.

The strychnine tones up the muscles, acts as a general stimulant and lessens the shock which necessarily follows labor. Ergotole insures better contraction of the uterus, thereby forcing out all clots which otherwise might be retained and become infected. This is more important in multiparæ, as with each succeeding labor the uterus becomes more inert. During the interval between the second and third state of labor sterilized gauze, wet with an antiseptic solution, should be kept over the vulva. After a normal labor it is unnecessary to use an antiseptic douche, as the placenta wipes out the canal, and this is followed by a douche of blood from above.

Nature's Antiseptic Fluid.—In many cases in which the strictest antiseptic precautions have been observed we will have fever, temperature 100°, but it will be noted that the patient is cheerful and does not feel sick; this is Volkman's aseptic fever, due to the absorption of blood serum. The nurse should prepare her hands just as the physician, except the creolin solution; this should be done each morning before making the patient's toilet, and if she has occasion to touch the cord she should be careful not to hand the mother a cloth before cleansing her hands, or otherwise convey germs to her.

Van Horn and Ellison, Park Avenue, 41st Street, New York, prepare an obstetric case which constitutes a valuable armamentarium; it consists of 2 sterilized bed-sheets, 4 doz. sterilized vulva pads, one 4-qt. douche bag, with glass nozzle, 1 zinc douche pan, 2 sterilized mull binders, heavy, 5 yds. sterilized gauze, 1 yd. 10 p. c. iodoform gauze, two 3-inch heavy mull bandages, sterilized, 1 lb. sterilized abs. cotton, 1 sterilized nail-brush, two 12-inch papier-mâché basins, rubber sheeting, 1¼ yds. by 2 yds., rubber sheeting, 1¼ yds. square, rubber on both sides, safety-pins, 2 ozs. carb. vaseline, 4 ozs. powdered boric acid, 4 ozs. 50 p. c. carbolic acid solution, 2 ozs. green soap solution, 2-100 grms. chloroform, 1 oz. f. e. ergot, 1 small bottle bichloride tablets, 1 small bottle sterilized tape.

The physician should always see that the breasts are properly cared for during the last weeks of pregnancy; the nipples should be washed in a solution to harden them. Listerine and alcohol, equal parts, answers the purpose; gently drawing them each day also prepares them. Mammary inflammation is preceded by infection of the nipples, as a fissure or excoriation of the nipple; this can be prevented by keeping the nipples clean, using a weak solution of boric acid just before and after nursing. Attention to the cord also comes in the domain of clean midwifery. I always treat it as if it were the stump of an arm I had amputated. Wash it off with plain water, then dust with iodoform and put on iodoform gauze, 10 p. c., over this a piece of borated cotton, then the bandage. This need not be opened in four days. Equal parts of acetanilide and boracic acid and carbolized gauze would probably do as well, and be more pleasant to those around.

A Case of Unclean Midwifery.—The majority of troubles after child-birth at the present time, we might say, are caused *directly* by the ignorant granny of to-day, about which enough has been written, and *indirectly* by germs. For this reason the young physician is called upon to treat most of the unclean midwifery, as his practice is largely among those who are dependent for treatment upon midwives.

Case.—Mrs. C., American, married, aged thirty-two years, was delivered of her fifth child, a boy, weighing about seven pounds, December 3d, 1894, after a short and normal labor, a midwife officiating. On December 6th, says "She had a chill but no pain." December 7th, chill and general pain. I was called in December 8th—respiration 28, pulse 140, temperature 105°, countenance very anxious, vomiting frequently, complete anorexia, tongue heavily coated, tympany marked, tenderness over abdomen, offensive diarrhœa.

Treatment.—No anæsthetic given. She was put on a table, the external genitalia and surrounding parts were scrubbed with pearline, the vagina washed out with a 1 to 2000 solution of bichloride. The instruments having been sterilized, the patient being on her back, an Edebohl's speculum was introduced (this is preferable for this class of work, as it is self-retaining); the uterus pulled gently down with a Skene's tenaculum, the entire inner surface carefully scraped with a curette; a small quantity of decomposing blood-clots was scraped out; involution had not begun and the organ was very tender. An intra-uterine douche of 1 to 3000 bichloride solution was given, continuing until the solution came away clear. Then the cavity was packed lightly with iodoform gauze, 10 p. c.

I think this a very important part of the treatment. It acts as (*a*) drainage; (*b*) hæmostatic; (*c*) stimulant—it stimulates the uterus, causing contraction, thereby promoting involution—(*d*) it is a good mode of applying a reliable antiseptic to the uterine cavity; (*e*) if there is a pus-producing surface at the late

placental site, by its antiseptic and stimulating properties it sets up healthy action; (*f*) it aids in the production of a hasty convalescence; (*g*) it prevents endometritis, salpingitis, ovaritis, uterine displacements, leucorrhœa, etc., from following in after life.

The introduction of the gauze is greatly facilitated by the use of a Polk's applicating speculum. By its use the irrigation is better done.

The vagina was then washed out with bichloride solution, 1 to 2000, and packed with iodoform gauze and an antiseptic pad applied to the vulva. While the treatment was being carried out the bed-clothes were changed, all unnecessary furniture and clothes were removed and one quart Platt's chloride sprinkled around.

December 9th, respiration 23, pulse 90, temperature 99°; elixir iron, quinine and strychnine ordered three times a day, with milk-punches.

December 10th, respiration 22, pulse 84, temperature 98½°; vaginal gauze removed and fresh introduced.

December 11th, respiration 22, pulse 80, temperature 99°; vaginal and uterine gauze removed and a carbolized douche given and an antiseptic pad reapplied. Recovery continued uninterrupted.

Other cases illustrative of this plan of treatment might be reported, but I deem this sufficient.

MEDICAL AND SURGICAL PROGRESS.

In no vocation has there been a more rapid advance than in medicine, during the last half century, and it is significant that the major part of this advance has been due, not to the observation and experience of the routine practitioner, but to the researches of scientific men who have been sneered at as theorists and who have brought to bear on their professional work the results of scholastic training entirely foreign to the scope of instruction in medical schools a generation ago. What, for example, could seem further removed from the domain of practical surgery than the investigation of little moving plants that are found in decomposing animal and vegetable matter? Yet the study of the habits of growth of these microscopic weeds, of the soils on which they thrive, and the poisons which prevent their development, has revolutionized surgery, and has almost banished from the operating-room the fear of suppuration, of gangrene, of erysipelas, and other forms of blood-poisoning. The recognition of the *rôle* of vegetable germs in the production of these untoward results of surgical interference, and the development of antiseptic methods of surgery, have rendered it possible to operate on the brain, spinal-cord, stomach, intestines, and other abdominal and pelvic viscera, and even the heart. Fourteen years ago the best medical and surgical skill of the country could not save the lamented Garfield from death by blood-poisoning. To-day the most unpretending surgeon, treating the poorest laborer, would be severely condemned, if not actually accounted guilty of malpractice, if he used the same methods. Thousands of women who would have been doomed to chronic invalidism a generation ago are now restored to health by operations attended by an average mortality of about two per cent.; whereas the same operations undertaken without antiseptic precautions would result in the death of nine-tenths of the victims. Thanks to the enforcement of rules of health, based on the same study of bacteriology, we no longer witness the devastation of such epidemics as were common even ten years ago, while for the first time in medical history cholera has been checked in its onward march to the west.—*A. L. Benedict, in November Lippincott's.*

Fanciful Patient—"Do you know, doctor, I am haunted by the horrible thought that I may be buried alive." Dr. Druggem (soothingly)—"Nonsense! I think I am in a position to dispel that delusion completely."

CURRENT LITERATURE CONDENSED.

Ptomaines, Absorption, Detection, and Estimation.[1]

When we consider that ptomains are definite chemical compounds, most of them crystalloids, we are at once driven to the conclusion that they, as well as leukomains, are subject to dialysis and are capable of being absorbed by the blood. The fact must be borne in mind that the urine and any substances it may hold in solution represent those substances which have been absorbed by the blood, for that which cannot get into the circulation cannot be eliminated by the urine. Inquiry has shown that this absorption may progress so far as to produce symptoms characteristic of infectious fevers (malaise, furred tongue, cold perspiration, and chill), in persons who suffer merely from constipation. The method of detecting and estimating ptomains at present in vogue is known as the urotomic coefficient. Normal urine, injected in small quantities into the body or into one of the lower animals, causes no disturbance. As the amount is increased some loss of physical equilibrium is observed until forty-five or forty-six c.c. are injected, when convulsions supervene. This figure is taken then as the normal limit, and a given sample of urine is designated as $\frac{1}{10}$, $\frac{1}{5}$, or $\frac{1}{2}$, according to the proportion of the normal required to produce similar results. Thus urine from a person constipated, with furred tongue and headache, will precipitate convulsions in one of the lower animals when but ten c.c. are injected, indicating in the individual a marked although not dangerous degree of absorption. Upon the exhibition of a cathartic, with the lapse of fourteen to thirty-six hours, the urine will show a reaction of forty-six c.c. A series of prognostic checks of this nature can be made as readily in a small hospital as in a large one, the injections of five c.c. being repeated at short intervals until results are obtained. By such means it would be possible to differentiate purely nervous shock from shock due to absorption of ptomaines.

[1] J. Malseed Bell, M. D., *Western Medical and Surgical Reporter*, December, 1895.

A Rare Anomaly of the Brachial Artery.

A negro, about fifty-five years of age, presented himself at my office for some slight ailment. His appearance of great age led me to examine him carefully. His hair was perfectly white, his face much wrinkled, the ancus senilis well marked, and the artery at the wrist evidently atheromatous. The temporal artery was sinuous and hard and the pulsation very noticeable. The heart-beat was forcible and the heart-sound pronounced, but without any murmur. He complained of a strong pulsation in the left arm, which directed my attention to the brachial artery. To my surprise I found it subcutaneous and outside the deep fascia. From its origin at the lower border of the teres major to the bend of the elbow, it could be picked up between the fingers and compressed, stopping all circulation in the forearm and hand. It was markedly atheromatous. The man was intelligent, and was more certain of his age than most of his race, and he assured me he was not over fifty-five years of age. He certainly looked as old as his arteries, and was evidently a marked case of premature senility. This anomaly of the brachial artery must be a very rare one, as I have succeeded in finding no mention of it in the literature on the subject. In the large work of Bourgery, Paris, 1834, there is figured a radial and ulnar artery outside the deep fascia, with the brachial in its normal position. This does not seem so remarkable, however, as where the larger vessel has jumped the track.

Some Causes of Neurasthenia Hitherto Little Discussed.[3]

There are causes—and important ones—of some of the graver forms of neurasthenia that deserve more than the passing attention hitherto vouchsafed them. We are inclined to believe that the conditions of a faulty education exert a considerable influence in disturbing the equilibrium of the nervous

[2] Eugene R. Corson, B. S., M. D., *Medical Record*, December 28, 1895.

[3] Editorial in *Medical News*, December 28, 1895.

system. The fact, for instance, that a careless habit once formed and persisted in, such as negligence in dressing, washing the person, in correspondence, in duties of the household, such as turning off the gas, may develop into painful obsessions, has been stated nowhere more definitely than in a paper by Dr. Höstermann. There are ideas he gives us to understand which, originally produced in the normal course of thought, may become dominant in consequence of some external causes or conditions; as, for instance, evil experiences, natural timidity, habits. The thought that the door was not completely shut, that the match was thrown in the neighborhood of inflammable material, etc., may recur to the mind and cause anxiety and unrest, whence comes a desire repeatedly to observe if the door is really shut, etc. The mind in which these incipient obsessions are produced is characteristically heedless and incapable, at the moment, of any particular action of strict attention.

Such heedlessness breeds accidents, and may cause a fright, and in an unusually impressionable mind, a lasting effect. By a curious reaction the peculiar event is ever afterward repeated with intense concentration and fear of the grievous consequences which happened the first time, repeated hundreds of times to verify the fact that no harm has resulted. It is a painful malady, though nothing in the experience of alienists is, perhaps, more curious and interesting. The subjects of such obsessions are usually impressionable people of neuropathic constitution. Impressions so powerful come early in the life of a patient, and are frequently made by that life. A small girl made the attempt to murder her stepmother. The idea had been produced by hearing the parents of her father discuss, somewhat too violently, the second marriage of their son. No ill treatment had occurred, and there were no other grounds for dislike of the stepmother. Such a case was formerly classed as moral insanity.

The extreme social liberty enjoyed by the youths of both sexes is a cause of it, a social liberty that leaves the child too much to itself, rendering it impatient of control where some restraint is probably necessary to prevent the extremes of joy, grief, anger—a *regime* which, if continued long enough, is quite sufficient to vitiate the nervous system, to produce in it and the will the instability, the excitability combined with weakness that, as we have said, are the fundamental conditions of neurasthenia if properly understood.

Syphilis vs. Tuberculosis. Report of a Case.[4]

Instances of the existence of two infectious or contagious diseases in the same individual at the same time are familiar, but a conflict between contagious diseases in the sense that in the soil in which the seeds of one disease are spreading another cannot flourish as yet belongs to the realm of theory. In the following case an antagonism between syphilis and tuberculosis seemed to be established: A Pole, aged thirty-five, with no knowledge of a family history, but with a distinct knowledge of repeated attacks of gonorrhœa, came to this country about five years ago. At that time he enjoyed excellent health. He had scarcely worked a year underground in a Pennsylvania coal mine when he began to suffer from an annoying dry cough. He went to work on a farm, and in a short time the cough ceased and he returned to the mine. The cough reappeared, and, frightened by a profuse pulmonary hemorrhage, he went to New York When I saw him he was pale, emaciated, with dry skin, cold hands and feet; very capricious appetite; bowels irregular—diarrhœa and constipation alternating; intense cough with bloody mucous expectoration; accelerated breathing; some dyspnœa; a weak pulse; and there were exhausting night sweats with mild rise of temperature in the evening. The sputa contained abundant bacilli. Examination disclosed flatness above and below the right clavicle; subcrepitant and mucous râles, and bronchial breathing. Mucous râles were heard all over the chest. The patient was put on creosote, starting with two drops t. i. d., in milk before meals, and increasing the daily dose by one drop. This patient ran his daily dose to one drachm t. i. d. The good effects were quite appreciable, the

[4] R. Abrahams, M. D., *Medical Record*, December 28, 1895.

night sweats stopped, the appetite improved, the cough was less distressing and the expectoration less profuse, although the lesion in the lung appeared unaltered. About ten weeks later the patient returned, having contracted syphilis, presenting a chancre with indurated and enlarged inguinal glands, nocturnal headache, lancinating pains in the bones, etc. The general appearance of the patient was not particularly bad, although he complained of rapid loss of strength. The chancre, pains, and headache yielded rapidly to mercurial plaster and iodide of sodium. Eight weeks subsequent to the appearance of the primary sore I was hurriedly called to see the man at a lodging-house. He looked wretched. About 4 P. M. he had had a violent chill lasting about one hour. His temperature at 9 P. M. was 104.5°; there was a dry and coated tongue; thirty respirations to the minute; pulse weak and about 120. The cough was not unusually severe. I prescribed quinine and digitalis, and next morning found the temperature 101°, and pulse and respiration much better. In the afternoon the chill was repeated, and there was a rise of temperature, pulse and respiration similar to that of the day before, and a similar remission the next morning. I noticed for the first time a faint areola over the chest and abdomen. For five days the systemic disturbance continued, the eruption becoming more pronounced and extending over the body. At the end of this period the temperature fell to the normal. The eruption was of the mixed variety commonly called the maculopapular syphilide, and there was a very characteristic angina. Up to this day the treatment consisted of stimulating and nourishing food; from this time on it was rigidly anti-syphilitic. The patient received over fifty mercurial inunctions, iodide of sodium being often added. The only other remedy given was cod liver oil. All traces of the primary and secondary lesions disappeared, but what was remarkable was that from the start of the evolution of the secondary period, and throughout the energetic specific treatment all signs of consumption, one by one, disappeared. At the end of fifty days' treatment a physical examination revealed absolutely no trace of existing phthisis. I kept him under observation for two months. Occasionally he required a dose of iodide, but I could not see any need for treating anything but syphilis. The patient today is in Poland. Occasionally I hear from him that he enjoys the best of health.

Carbolic Acid Poisoning.[5]

Poisoning by this acid is not uncommon. Applied to the skin or mucous membrane, it whitens, hardens, and corrugates it. In five autopsies of carbolic acid poisoning seen by the writer the gums, tongue, and, in fact, the whole mouth were colored white. As one would naturally expect the mucosa of the whole alimentary tract was affected and the mucosa of the œsophagus could readily be stripped from the muscularis. Opening the stomach the odor of the acid was very noticeable. "Carbolic acid may be separated from the contents of the stomach by shaking them with ether, decanting the ethereal liquid and allowing the ether to evaporate. Oily-looking globules of the acid are thus obtained. There is no test for the acid so delicate as its odor" (Taylor.)

The kidneys showed in one case principally interstitial changes, in the others the parenchyma of the organ was mainly involved. I was unable to confirm the statement that fatty degeneration of the cells of the liver and kidneys is a constant accompaniment, nor do the observations of Salkowski confirm it. I doubt if there is any peculiar renal lesion. In three of the cases the lungs were congested and œdematous. The urine is colored green, brown, or black. The vomit is brownish or greenish, and has the odor of carbolic acid. The most striking picture under the microscope is the extraordinarily large number of muscular fibres; most of them normal in appearance, but a few granular and fatty. While a muscular fibre may be seen now and then in vomited matter from various causes, it is doubtful if in any other condition so many occur. Death has occurred from external applications of carbolic acid. Large numbers of bacteria were found in the vomited matter, the acid even in cases where

[5] William Moser, M. D., *Brooklyn Medical Journal*, January, 1896.

quite a quantity has been taken, evidently possesses, in this medium, very little germicidal action.

The treatment consists in the administration of white of egg (albumen.) "A mixture of castor oil and olive oil, or a mixture of slaked lime with about three times its weight of sugar, rubbed together with a little water, are recommended as antidotes." (Altfield.)

Some recommend sulphate of soda. The stomach-pump should be employed since emetics fail, the muscular tissue being paralyzed.

LABELING MEDICINES IN ILLINOIS.

We republish section 14 of the new Illinois pharmacy law relating to labeling of medicines:

No person shall sell at retail any drug, medicine or poison without affixing to the box, bottle, vessel or package containing the same a label bearing the name of the article distinctly shown, with the name and place of business of the registered pharmacist from whom the article was obtained. Provided, that nothing herein contained shall apply to the dispensing of physicians' prescriptions. Any person failing to comply with the requirements of this section shall be liable to a penalty of five dollars for each and every such offense.

The State Board of Pharmacy has defined its interpretation of the clause as follows:

The provision in section 14 regarding the labeling of packages, etc., will be complied with if a printed, written or stamped label or tag be affixed thereon or thereto, or if the article or package be stamped or written on showing the name and place of business of the registered pharmacist, and the name of the article therein contained.

All patent and proprietary medicines come under this provision, and must be labeled the same as other medicines before they leave the drug store or pharmacy as contemplated in the law.

The placing of the label of the registered pharmacist on the wrapper of the patent or proprietary article which bears the name of the article already printed thereon, complies with the law without rewriting or printing the name of the article on the label.

Naming the contents of physicians' prescriptions is not required by the law.

All poisons must be labeled "Poison" in accordance with the requirements of sections 62 and 63, chapter 38, of the criminal code which is in full force and effect and it does not conflict with section 14 of the pharmacy law.

Section 62. Every druggist or other person who shall sell and deliver any arsenic, strychnine, corrosive sublimate, prussic acid or other substance or liquid usually denominated as poisonous without having the word "Poison" written or printed upon a label attached to the phial or parcel in which such drug is contained, or shall sell and deliver any drug or medicine other than upon the prescription of a physician, without having the name of such drug or medicine printed or written upon the label attached to the phial or parcel containing the same shall be fined not exceeding $25.

Section 63. If any druggist or other person sells or gives any arsenic, strychnine, corrosive sublimate, or prussic acid without the written prescription of a physician and fails to keep a record of the date of such sale or gift, the article and amount thereof sold or given away, and the person to whom delivered, he shall be fined not exceeding $50 for each neglect. Whoever purchases any such poison and gives a false or fictitious name shall be punished in the same manner.—Approved September 13, 1895.

Section 10. * * * Every certificate of registration granted under this act shall be conspicuously exposed in the pharmacy to which it applies, and the name of the registered pharmacist who conducts the drug store or pharmacy shall be conspicuously displayed over the door or department. Any person violating the provisions of this section shall be liable upon conviction thereof to pay a penalty of not less than $20 or more than $50.—*Western Druggist, 1895.*

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PHILADELPHIA, SATURDAY, JANUARY 18, 1896.

EDITORIAL.

DID VACCINATION CAUSE DEATH?

Health Commissioner Z. Taylor Emery of Brooklyn, and Dr. Frank E. Boyden appeared this morning in Part I. of the Supreme Court in that city, where Justice Van Wyck is hearing the suit of Peter Burggraf against both physicians to recover $5,000 damages for the loss of Burggraf's daughter Julia, who died on April 10, 1894, after having been vaccinated by Dr. Boyden.

Up to the time of her death Julia Burggraf was a pupil at Public School No. 36. She was nine years old. In the spring of 1894 there was an epidemic of small-pox in Brooklyn, and Dr. Emery ordered all the children in the public schools to be vaccinated.

Special vaccinators were employed by the Health Department, among whom was Dr. Boyden. These doctors went to many factories and compelled persons to submit to vaccination. They also vaccinated tenants in houses where cases of small-pox had been discovered. As a result there was considerable grumbling, and many persons threatened to sue the Health Commissioner.

Much now depends upon the present suit of Burggraf. If he wins it others may also bring suit.

Julia Burggraf was vaccinated on April 5. On that night she became ill and, it is alleged, died five days later of lockjaw as a result of blood poison. Dr.

Emery's defence is that there was an epidemic prevalent in the city at the time and that he was justified in vaccinating all school children.

Several witnesses testified to-day as to the child's condition before her death.

The case is still on.

This clipping from the New York *Sun* of January 10th brings to mind some points of interest in regard to the manner of dealing with similar occurrences by the public press and the professions generally, including doctors, lawyers, and preachers. So easily are some minds swayed by a passing whim that, shameful to confess, one may find even now, men in the profession as well as among the laity, who do not believe in vaccination. But then this is not so strange, as one will every now and then meet a man who is an idiot so egregious that he does not know whether he be living or not.

What effect should such unfortunate instances have on vaccination as a preventative to small-pox? Absolutely none! The investigation, however, should be thorough, and ought to disclose the following: What was the condition of the patient at the time of the vaccination? What instrument was used? What precautions for cleanliness were used? Also, the vaccine matter should be traced to its source, and everything connected with its preparation and marketing laid open to the inquiries of the investigating committee.

Vaccination, though it is often considered a trifling affair, is in the nature of a surgical operation, and should be done with proper surgical precautions.

Many persons are careless about bathing, and the body surfaces are convenient resting places for millions of germs, and for volumes of putrescent material. The skin is a protecting envelope that shuts off the outside of the body from the inside. Go through this covering, even if by only a pin's scratch, and the electric connection between the inside and the outside surfaces is broken. If in addition, there is deposited upon this raw surface, elements of infection derived either from the skin itself, or from imperfectly prepared virus, or from the hands or instruments of the operator, and there are all the elements which go to make up infection, and which may cause death.

There is still another point to be considered in connection with the matter, one that is the most important of all, which, for want of a better name we call idiosyncrasy—which being translated means a peculiar commingling of constitutional elements (from *ἰδιος* and *συγχρασις*.)

Being still further elaborated, this means a condition of the body, the cause of which is not clearly understood, in which any small irritant, which in the ordinary normal condition would have no effect, may produce serious symptoms, and even death.

A number of examples might be given. The writer had an aunt who died in a few moments after being stung by a bee. The writer himself, had a teno synovitis followed by phlegmonous inflammation and abscess in the calf of the leg, caused by an ill-fitting shoe.

At this point it might be well to note that the point of selection for injuries that cause lock-jaw, is that portion of the body most neglected, and which most frequently comes in contact with filth and germs. A clean wound is but slightly dangerous, but to a person who has the idiosyncrasy spoken of, almost any wound is dangerous, and, especially so is one complicated by the presence of any portion of septic material.

Reverting to the medico-legal opinions volunteered in such cases, we have this to say in brief: There is no more reason why vaccination should be decried be-

cause of such accidents than that anæsthetics should be abolished because of a certain proportion of persons falling victims to the use; or that surgeons should refuse to do capital operations in critical cases, because a certain proportion of patients succumb to shock. Examples could be multiplied.

The public press should be very conservative in its discussion.

VIEWS AND INTERVIEWS.

The Reporter commends to the thoughtful consideration of all interested in the welfare and progress of Philadelphia, some comments made by an observer at a distance and which are reproduced elsewhere in this number. It is an opportunity to see ourselves as others see us without subjecting us to caricature. The situation is plainly apparent to the editor of the *Cincinnati Lancet-Clinic*, and the expression of his views is clear, temperate in language and kindly in spirit. Neither does he indulge in exaggeration. The condition of affairs remarked is unfortunate wherever it may prevail. In a city claiming to be the chiefest medical centre of the new world, the incongruity is complete.

* * *

Carping criticism is not merely offensive and injudicious, but it fails of any practical result. It is not the REPORTER'S business to search out faults and parade them in public, but it would be folly to deny the existence of short-comings of such magnitude as to be evident to all but the local profession, and it would be cowardly to evade an issue placed squarely before it. The REPORTER has no axe to grind in this connection and would avoid giving offense to any, but what little it has to suggest will be said in plain words.

* * *

Truth to tell, judging from observation and, particularly, from the consideration of current medical literature, Philadelphia is not recognized by the profession-at-large as the present capital of medical America. There is not another city of any importance, medically, whose local profession is not consistently and persistently kept in evidence, relatively more than that of Philadelphia. The reason is not difficult to discover.

* * *

Not that Philadelphia is insignificant in the medical world. On the contrary, if no longer conceded the chiefest, its claim to that position is by no means abandoned. Nor has a final decision been reached relegating Philadelphia to a subordinate importance. The Philadelphia profession has contributed in full proportion to its superior reputation, to those advances in science which make medicine truly progressive, and which are the enduring evidences of true greatness. Of all those elements which have operated to make and keep Philadelphia greatest in the world of American medicine, none are now lacking save only modern enterprise and business sagacity.

* * *

At first sight this comment may appear harsh and entirely too sweeping in scope. As a matter of fact, it is true only in its general application. There is no want of enterprise manifested by any particular interest connected with local medicine, nor in its narrower application is there any lack of business sagacity. Specific interests are in themselves as strong as may be found anywhere. Philadelphia's weakness is in the inco-ordination of its members, each one of which is unusually strong. The lack of business sagacity is shown in the failure to mobilize its forces; the lack of enterprise is manifested in the absence of any attempt to combine all interests for a common good. To make this apparent, it is only necessary to note the situation from the professional point of view, which will be found anal-

ogous to the business aspect as commented upon by the *Lancet-Clinic*.

* * *

As matters now stand, Philadelphia is known abroad principally as the location of great medical schools, and it is in connection with the schools that it is most frequently mentioned. The great body of local practitioners, who are not associated with one or another of these institutions, finds insufficient recognition by the general profession. This is a condition unworthy of the character and capabilities of Philadelphia medical men. Great as are its institutions, and they fully deserve their reputation, it is nevertheless true that there are in Philadelphia more great men unattached than are included within the various faculties.

* * *

It is humiliating to contemplate a body of men such as constitutes the medical profession of Philadelphia, content with a reputation incidental to local institutions, and satisfied to shine by reflected light. It must be remembered that an institution is famous chiefly because of the connection with it of men whose great reputation redounds to its credit. But the converse is not true; mere connection with a famous institution does not make a man great. It may, however, give him considerable publicity. The true measure of the character and quality of a professional body is not to be found in the presentment of a fractional component. Of these essentials for a great centre the educational facilities are of prime importance. If possession of the best medical colleges in this country was the only requisite, there would be no question as to Philadelphia being the medical centre of America, and that without a formidable rival. But supremacy in this one respect is far from assuring supremacy in all the other respects necessary to a great medical centre.

* * *

To deserve and to retain its reputation as the best representative of medical science in the western world, Philadelphia professional interests of all kinds and degrees must combine and assert superiority in all that goes to make up what is known as a medical centre. Even more, they must constantly and emphatically proclaim its advantage before the whole medical world. So far as educational facilities are concerned, superiority is admitted. The comments of the *Lancet-Clinic* are sufficient to disclose the indifference to the advancement of local enterprises manifested by the business contingent. The attitude of the factor of greatest importance, the great body of practitioners, as indicated by representative associations, is a subject requiring more extended comment and will be noticed hereafter.

THE PHILADELPHIA "MEDICAL NEWS," ET AL.

This well-known and popular medical journal has been transferred to New York.

The change is made, we presume, for financial reasons; and yet it is difficult to understand how this factor can be made to answer the question as to why the change. Within the past year the MEDICAL AND SURGICAL REPORTER was transferred to New York, but returned to its former home. At this distance it is hard to discern a cause for such changes. Is it because of lack of interest or patronage on the part of the medical profession of Philadelphia? Or is there a shortage of enterprise on the part of business firms which, while deriving their entire support from physicians, do not patronize the journals of the profession.

The National Government has two sources of revenue—one through direct taxation, and known as internal revenue; the other as indirect taxation, and popularly referred to as the tariff. Both are made use of, and are necessary for the conduct and support of the Nation's Government. The conduct of a medical journal is quite similar in its revenue resources. The subscription price paid by physicians is the direct tax paid by them for information pertaining to the current

events which are transpiring that are of special interest to them as practitioners of medicine. This subscription price is very small in amount—so small, in fact, that it is easily borne by all who are engaged in active work.

* * * * * *

There is no unjust reflection in a statement, believed to be true, that there are not five medical journals published in the United States which could be sustained on the direct tax or subscriptions which come to them from the medical profession. Every one is made better because of the tariff levied upon advertisers. For this reason physicians should, by their patronage, preferably purchase their supplies from firms who recognize their obligations to the medical profession in the way of a liberal response to solicitations for patronage of the advertising pages of the journals of their preference.

Physicians cannot know of the improvements that are made in pharmacy and other channels other than through the advertising pages of their journals. Circulars do not bear the stamp of responsibility, and carry with them more or less of the odor and ways of the quack nostrum vendor. An advertisement in a reputable medical journal carries with it a stamp of reliable responsibility, because it has passed the scrutiny of a man who is believed to keep track of such lines of goods with a view to discriminating against that which is fraudulent. Many hundreds of dollars worth of advertising orders every year find their way to the publishers' offices which are thrown out or respectfully declined.

In Philadelphia and other large cities there are firms engaged in the manufacture of good pharmaceutical preparations, which never contribute a dollar towards a legitimate sustentation of the medical press. Such firms do not deserve any favorable consideration whatever from medical men; they are tariff or tax shirkers, who should be classified with the men who are wanderers on the face of the earth, without homes and without a country.

The existence of these slow going dead-and-alive houses in Philadelphia and the live and progressive houses of New York may have had very much to do with the migrations of the two Philadelphia medical journals.

Furthermore, in order that reputable medical journals may fill their mission as post-graduate educational factors to the best advantage for all concerned, these publications should receive a liberal and not a stinted recognition from the medical colleges, through a continuous patronage of their advertising pages. Medical journals have universally and uniformly sustained reputable medical schools and colleges, and as persistently used their influence in furthering a destruction of fraudulent schools. For such reasons medical journals have a special claim to present in a seeking for the advertising patronage of reputable institutions of learning.

The Philadelphia *Medical News* and MEDICAL AND SURGICAL REPORTER never in any one year received two thousand dollars all together in the way of ad. patronage from the great schools of that city, perhaps not half that sum, although these same journals have been the strongest bulwarks the schools have had. And yet two thousand dollars would be barely sufficient—may be not near that—to meet the actual necessary expense account of those journals for a single month. The same general conditions pertain in some other cities, notably to Cincinnati.

The medical profession, and particularly the medical colleges of Philadelphia, can ill afford to lose such publications as the *Medical News* and the MEDICAL AND SURGICAL REPORTER.

The medical schools of Philadelphia have tried, and are trying, the experiment of publishing their own journals. Those schools are so strong and so wealthy that they can issue creditable publications, but while they are doing this they are destroying journals that should be liberally sustained through their own patronage. This is done, not so much through a curtailment of subscription lists, as by withholding an advertising patronage which the weeklies have a right to expect and which should be given to them.

At the opening and closing of all medical colleges the faculties of these institutions expect liberal announcements and reports in the medical jour-

nals, and would think the journalist sadly lacking in enterprise who did not make and publish such reports, as the faculties would say as news items looked for by subscribers. Yes, truly; but who is benefited most of all? The colleges. In a quarter of a century of close observation we have no recollection of receiving a single subscription through the publication of liberal college notices. To be sure, the colleges can and do live, and a few thrive without giving their patronage to the journals, and the journals live on and right along without the sustentation they should have; but is that the very best way to do—best for the medical profession, best for the schools, and best for the journals? The question is open for consideration by those who are concerned, and that includes every member of the medical profession.

These reflections come to us through a musing over and about the similarity of medical journalistic conditions in Philadelphia and Cincinnati. A neighbor of enterprise is not far from each of those cities, New York and St. Louis. The medical journals of those latter are made to prosper and grow strong through a splendid local advertising support, which redounds to the special benefit of the medical profession of the entire country.

Medical journals everywhere simply ask for fair play. They are not importuning beggars or impertinent solicitors. Where there is a journal that has shown justifiable claims to live, it should have a liberal support, particularly in its home.

CORRESPONDENCE.

ESCAPED BY THE "PLATE OF THE TEETH."

MR. EDITOR:—

The case narrated occurred in the practice of Dr. E. W. Clark, of this city.

Tuesday, June 11th, 1895, at two P. M., John R., aged 67, was quietly sitting by his kitchen window, when a neighbor entered the door, and after some altercation between the two parties, suddenly drew a thirty-two calibre revolver and began firing at Mr. R.

Two hours later the surgeons found the following condition: One bullet had gone through the window without hitting Mr. R. A second bullet had entered the face over the mental foramen of the inferior maxilla. This bullet struck the plate of a set of false teeth, and, passing, came out at a point just over the angle of the jaw, cutting through the lobe of the ear. This bullet also went out of the window.

The third bullet was aimed squarely at the epigastrium, but struck a large bone button on the vest. The bullet penetrated the vest, but not the shirt, but, at the same time, it or the button, by the tremendous force at so short a range, cut a hole in the skin just over the epigastrium. This bullet was found on the floor without any marks of blood on it. But three shots were fired. The wounds were dressed antiseptically and the patient, six days later, was good as ever.

The points of interest are:

1st, the utility of buttons and of false teeth; 2nd, the fact that a solution of continuity of the skin may be produced with the proper force properly applied, without the impinging body coming in immediate contact with the skin.

W. H. NEWMAN, M.D.

Grinnell, Iowa.

Among the questions which a seven-year-old Montclair, N. J., boy was required to struggle with in an examination was this: "Of what is the human body composed?" As it was a written explanation, he had some time to get his thoughts together, and the following answer was the result: "The human body is composed of two-thirds water and the other three-quarters meat and vegetables."—*New York Tribune.*

ABSTRACTS.

FRUIT AS A FOOD AND MEDICINE.*

The great mass of the people look upon fruit as a luxury upon which they can only spend odd pennies for the amusement of their children. Many parents will more readily spend money on injurious or even poisonous sweets than they will on good healthy fruit, and fashionable society will spend pounds on cakes, wines, and brandies, while they spend as many shillings on the very thing they need to keep them healthy—fruit. And as for the amount of drugs swallowed which should be replaced in great measure by fruit it is beyond my powers to calculate. Millions upon millions of pounds are spent annually upon mercurial and other purgatives, most of which would be quite unnecessary if the people would but look upon fruit as a necessary article of diet. The fruit grower of the future must try to so educate the public mind that this state of things will be altered. The man who makes sweets puts them up in all sorts of tempting boxes or packages, then he pushes the sale in various ways. Why should we not have fruit palaces where, at reasonable prices, people could get the choicest fruit at any hour of the day?

Good ripe fruits contain a large amount of sugar in a very easily digestible form. This sugar forms a light nourishment, which, in conjunction with bread, rice, etc., form a food especially suitable for these warm colonies [Australia]; and when eaten with, say, milk or milk and eggs, the whole forms the most perfect and easily digestible food imaginable. For stomachs capable of digesting it fruit eaten with pastry forms a very perfect nourishment, but I prefer my cooked fruit covered with rice and milk or custard. Although I look upon fruit as an excellent food, yet I look upon it more as a necessary adjunct than as a perfect food of itself. Why for ages have people eaten apple sauce with their roast goose and sucking pig? Simply because the acids and pectones in the fruit assist in digesting the fats so abundant in this kind of food. For the same reason at the end of a heavy dinner we eat our cooked fruits, and when we want their digestive action even more developed we take them after dinner in their natural, uncooked state as dessert. In the past ages instinct has taught men to do this; to-day science tells them why they did it, and this same science tells us that fruit should be eaten as an aid to digestion of other foods much more than it is now. Cultivated fruits, such as apples, pears, cherries, strawberries, grapes, etc., contain on analysis very similar proportions of the same ingredients, which are about 8 per cent. of grape sugar, 3 per cent. of pectones, 1 per cent. of malic and other acids, and 1 per cent. of flesh-forming albuminoids, with over 80 per cent. of water. Digestion depends upon the action of pepsin in the stomach upon the food, which is greatly aided by the acids of the stomach. Fats are digested by these acids and the bile from the liver. Now, the acids and pectones in fruit peculiarly assist the acids of the stomach. Only lately even royalty has been taking lemon juice in tea instead of sugar, and lemon juice has been prescribed largely by physicians to help weak digestion, simply because these acids exist very abundantly in the lemon.

Another great action of fruit in the body is its—shall I call it—antiscorbutic action. It keeps the body in a healthy condition. Good fruit clears the blood and prevents this sort of thing. This lemon-juice cure for rheumatism is founded on scientific facts, and having suffered myself from acute gout for the last fifteen years, I have proved over and over again the advantages which

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are obtained from eating fruit. Garrod, the great London authority on gout, advises his patients to take oranges, lemons, strawberries, grapes, apples, pears, etc. Tardieu, the great French authority, maintains that the salts of potash found so plentifully in fruits are the chief agents in purifying the blood from these rheumatic and gouty poisons. Perhaps in our unnatural, civilized society, sluggish action of the bowels and liver is responsible for more actual misery than any other ailment. Headache, indigestion, constipation, hæmorrhoids, and a generally miserable condition, are too often the experience of the sufferer, and to overcome it about half the drugs in the world are given in all sorts of compounds. But bring in your fruit and the whole scene changes. If we go through the back streets of our large towns how many pallid-faced, listless-looking people and children swarm around us, and they have, as a rule, plenty of food.

As a medicine I look upon fruit as a most valuable ally. When the body is in that breaking-up condition known as scurvy, the whole medical profession look upon fruit and fresh vegetables as the one and only known remedy. I believe the day will come when science will use it very much more largely than it does now in the treatment of many of the every-day ailments. Impure blood means gout, rheumatism, skin diseases, rickets, and other troubles. As it is proved that fruit will purify and improve the quality of the blood, it must follow that fruit is both food and medicine combined. In fevers I use grapes and strawberries, giving them to my patients in small but frequent doses—oranges and baked apples, if the others are not obtainable. For rheumatism plenty of lemons are invaluable. White girls with miserable, pallid complexions, want a quart of strawberries a day; where these are not obtainable, bananas, which contain much iron, are a good substitute. Probably, of all fruits, the apple stands unrivaled for general purposes in the household; either raw or cooked it can be taken by nearly everybody, and it contains similar properties to the other more delicate fruits. To my mind the pear is more easily digested than the apple, and for eating uncooked is superior to it. Dried fruits should be used when green cannot be obtained. If soaked for a few hours before cooking they make a capital substitute for fresh fruits, and they come cheaper to the consumer.

For preserving fruits I look upon bottling in glass bottles as the coming thing. Not by the use of chemicals, such as salicylic and boracic acids, and the various preservatives made from them, but simply by protecting it after cooking from the fermentative germs in the atmosphere. It keeps for years, turns out even more palatable than green fruit, is equally digestible, and contains all the virtues of freshly cooked fruit. Canned fruit is not so good; the acid of the fruit dissolves up tin and lead from the tin, and I have seen very serious cases of illness as a result. Besides, fruit should be sold much cheaper in bottles than in tins, as the bottle can be returned and used again.

A Remedy for Burns.

Dr. Thierry, of the Charity Hospital, Paris, France, has discovered a remarkable remedy for burns. The doctor has had charge of the surgical operations at the hospital, and used picric acid as an antiseptic. One day a drop of lighted phosphorus from a match fell on his hand, without any sensation being felt, and the same experience was noted when some hot sealing-wax dropped on his hand. From that time the doctor tried picric acid on patients suffering from burns. The tissues of the epidermis coming in contact with the acid strongly contract, an action quite the contrary to that caused by fire or a burn of any kind. Under this treatment no blisters form on the injured part.—*Information.*

Surgical tuberculosis is of far more frequent occurrence than is generally supposed. Kocher states that 90 per cent. of the bone and joint cases in his clinic are tuberculosis. Tizzoni, in Italy, has lately examined lymphatic glands of forty-seven persons who met violent deaths and who were, apparently, in perfect health. Strange to say, he found tubercle bacilli present in forty-three of the subjects.—*New York Medical Record.*

LEGISLATION FOR INEBRIATES IN AUSTRIA.

The Austrian Government has prepared a bill for legislative procedure with habitual drunkards, which embodies the principal suggestions of the Association Inebriates Legislation Committee and the Society for the Study of Inebriety. The authorities of the State, the provinces, the districts, and the communes are to be empowered to establish and maintain retreats. Voluntary and involuntary patients are to be provided for; the former, except as to admission into a retreat, are to be treated in the same way as patients who may be compulsorily sent in, the maximum period of detention being two years, as recommended by the recent English Departmental Committee. Involuntary patients may be consigned to the district retreat, either by a magistrate's order, or on the petition of the parents or children, or of the husband or wife or trustee, or of the head of a lunatic asylum, of which the drunkard may be an inmate; by the action of the public prosecutor, or by the mayor or burgomaster of the town or village where the inebriate resides. Compulsory consignment must be ordered only after an ordinary judicial action before a Court of First Instance, where the evidence is to be taken, inclusive of that of the alleged drunkard and of medical witnesses, especially experts. Among the circumstances proposed to constitute an habitual drunkard and involving curative sequestration by judicial process is a record of three convictions within twelve months. If discharged on leave before the expiry of the two years, if the inebriate relapse he may be secluded for the remainder of the term; if he relapse he may have, if necessary, successive terms of two years' detention. As there is a growing demand for this legislation in Austria, it is expected that the Government measure will be passed into law.—*Brit. Med. Jour.*

PERISCOPE.

MEDICINE.

Music as a Therapeutic Agent.

Professor Tarchonoff, of Saint Petersburg, has been investigating the influence of music upon man and other animals. The subject is by no means a new one. Music was used in treatment by the physicians of Greece and Rome, and the case of David and Saul will naturally suggest itself. In recent times Dagiel and Féré have investigated the effect of music upon the respirations, the pulse, and the muscular system in man. Professor Tarchanoff made use of the ergograph of Mosso, and found that if the fingers were completely fatigued, either by voluntary efforts or by electric excitation, to the point of being incapable of making any mark, except a straight line on the registering cylinder, music had the power of making the fatigue disappear, and the finger placed in the ergograph again commenced to mark lines of different heights, according to the amount of excitation. It was also found that music of a sad and lugubrious character had the opposite effect, and could check or entirely inhibit the contractions. Professor Tarchanoff does not profess to give any positive explanation of these facts, but he inclines to the view that "the voluntary muscles, being furnished with excito-motor and depressent fibers, act in relation to the music similarly to the heart—that is to say, that joyful music resounds along the excito-motor fibers, and sad music along the depressent or inhibitory fibers." Experiments on dogs showed that music was capable of increasing the elimination of carbonic acid by 16.7 per cent., and of increasing the consumption of oxygen by 20.1 per cent. It was also found that music increased the functional activity of the skin.

Professor Tarchanoff claims as the result of these experiments that music may fairly be regarded as a serious therapeutic agent, and that it exercises a genuine and considerable influence over the functions of the body. Facts of this kind are in no way surprising, and are chiefly of interest as presenting some physiological basis for phenomena that are sufficiently obvious. The influence of the war chant upon the warrior is known to even savage tribes. We are accustomed to regard this influence simply as an ordinary case of psychical stimuli producing physiological effects.

Professor Tarchanoff evidently prefers to regard the phenomena as being all upon the same plane, namely, that of physiology; and until we know the difference between mind and body, and the principles of their interaction, it is obviously impossible to controvert this view successfully.

From the immediately practical point of view we should not ignore the possible value of music in some states of disease. In melancholia and hysteria it is probably capable of being used with benefit, and it is worth bearing in mind in dealing with insomnia. Classical scholars will not forget that the singing of birds was tried as a remedy to overcome the insomnia of Mæcenas. Music is certainly a good antidote to the pernicious habit of introspection and self-analysis, which is often a curse both of the hysterical and of the highly cultured. It would seem obvious to have recourse by preference to music of a lively and cheerful character.—*Amer. Med. Surg. Bul.*

HYGIENE.

Porous Clothing.

It is absolutely essential to health that the emanations from the skin pass easily through the clothing. This—which is called "transpiration"—may be interfered with by an excess of clothing, or by clothing of a very close texture. All who wear India rubber coats know how uncomfortable they are after they have been on a short time. Ordinarily, proper clothing will not prevent transpiration, but an excess will interfere with it; and where too much clothing is worn it soon becomes foul, because the outside air cannot freely mingle with the gases from the body and dilute them. Some wear the thickest and heaviest undervests which they can buy, and such people are very generally the victims of frequent colds. Following the rule of light clothing, they would be much safer from the dangers of exposure were they to wear two light undervests instead of one very thick and heavy.—*Sanitarian.*

Hovel Homes.

I am perfectly well aware that here and there in any country there can be found dens and hovels in which men and families devoted to industrial pursuits find what they call their homes. I have seen such. I can find them in my own State, and probably in every State in the Union. I can find them in England, and in every continental country. But they are the exceptions. In Manchester, England, sixty years ago, 60,000 factory operatives were living underground in cellarages. To-day, you can not find one family belonging to the industrial classes living in such a hole. I have looked into a thousand homes of the working people of Europe; I do not know how many in this country. I have tried to find the best and the worst. And while, as I say, I am aware that the worst exist, and as bad as under any system or as bad as in any age, I have never had to look beyond the inmates to find the cause: and in every case, *so far as my own observation goes*, drunkenness was at the bottom of the misery, and not the industrial system or the industrial conditions surrounding the men and their families.—*Carroll D. Wright.*

Even when spoils politics does not issue in definite and manifest corruption, it still has a terribly paralyzing influence upon all attempts to reform criminals. Wherever politics is a wholly selfish business, and "the art of winning elections" is practiced as a means of livelihood by men not qualified for the offices to which they attain, we have a blundering, obtuse, and conscienceless management of institutions. A teacher who was looking up local conditions as a preparation for lecturing on crime found that the only man connected with the county jail who had an unselfish interest in prison reform was one of the prisoners. The sheriff of the county said he was in office to make all he could out of it "honestly," which meant "legally."—*Amer. Jour. Sociol.*

Extermination of Bed-bugs.

The number of "cures" for bed-bugs is legion, and that probably constitutes a good proof of their general insufficiency. The following list covers but a few of the engines of war brought forth to rout the nocturnal marauders: Oil of turpentine and its congeners, kerosene, benzin, mercury, paris green, mercuric chloride, zinc chloride, arsenic, insect powder, Scotch snuff, capsicum, naphthalin, camphor, sulphur fumes, ammonia vapor, soft soap, carbolic acid (both pure and crude), colocynth, wormwood, aloes, pepper, sodium borosalicylate, cimicifuga root; also fresh sprays of strongly scented plants, such as ledum palustre, pennyroyal, tansy, pine, etc., placed beneath the mattress.

A popular bug exterminator is a solution (1:32) of mercuric chloride, sometimes modified by the addition of twenty per cent. of oil of turpentine. It may be stated at the outset that alcohol by itself causes death by penetrating into the breathing tubes and thus suffocating the insect. Corrosive sublimate is superfluous and, in fact, valueless. Oil of turpentine, good and all-sufficient alone, reacts with the mercuric chloride, precipitating the latter and being decomposed itself. The objection to alcohol is its effect on varnishes; kerosene and the terebinthine oils leave greasy or resinous spots on bedding and wall-paper; mercuric ointment, while of double efficacy, is not only nasty but its vapors detrimental to health; the odor of carbolic acid, (especially the crude), turpentine, kerosene, etc., is persistent and annoying; benzin is dangerous because of its inflammability—so what shall one do?

A German pharmacist, L. Bernegan, has recently attacked this "ticklish" subject with characteristic Teutonic thoroughness, and published the results of his investigation in the *Apotheker-Zeitung*. Slight elevation of temperature puts bedbugs to flight, increased heat kills them. Persian insect powder only stupefies them temporarily, even if the bugs have been imbedded in the impalpable powder for full two hours. A mixture of insect powder and ten-per cent. of boric acid acts similarly. Burying the bugs in powdered arsenous acid does not affect them deleteriously. Solution of hydrogen peroxide paralyzes the insects almost instantaneously, but after ten minutes they recover from their lethargy and gradually regain their vigor, seeming in the best of health after being kept in the caustic liquid for two hours. On the other hand: bugs placed in solution of potassium arsenite die in ten minutes. Moistened with Hager's bed-bug tincture they die in five minutes. Formaldehyde solution causes instantaneous death, the bugs remaining upright. Kerosene and benzin also act instantaneously, the bugs turning on the back. Excellent results were obtained with solution of soft soap, which was used in form of spray and also for washing the partitions, bedsteads and

floors. As the safest and very satisfactory method of exterminating bugs in mattresses, upholstered furniture, etc., Bernegan recommends fumigation with sulphurous acid. In general, he gives soap solution the preference, the formula for which is:

Bernegan's Bed-bug Soap Solution.

Soft soap	g.	100
Caustic soda	"	15
Water	"	1400

A similar preparation is the following, the object of the turpentine (some use resin) being to glue down the unhatched eggs:

Dieterich's Bed-bug Exterminator.

Soft soap	g.	200
Turpentine (thick)	"	50
Kerosene	"	100
Water	"	650

Dissolve the soap in the hot water, incorporate the turpentine, then the kerosene, and stir until cold.

Hager's bed-bug tincture contains colocynth, aloes, pepper, copper sulphate, alcohol and water, in which, however, the copper sulphate is superfluous.

Benzin does not kill the eggs and so may be fortified by naphthalin. The following, but for its dangerous nature, might be considered an almost ideal bug exterminator:

Naphthalin Bed-bug Exterminator.

Naphthalin	g.	100
Benzin	"	900

This mixture may be used indiscriminately on bedding, furniture, textiles of all descriptions, wall-paper, etc.

To eradicate bugs from the house all wall-paper must be torn off and the partitions treated with the soap solution mentioned above, the floors must be similarly scrubbed, cracks and crevices cemented with hard soap, and if calcimined the liquid should contain decoctions of some of the bitter substances enumerated above. In the tightly closed room sulphur may also be burned, as well as wood alcohol, for the production of formaldehyde, also shallow vessels containing ammonia or formaldehyde may be set on the floor and left over night.

Below follow a few additional formulas for bed-bug exterminators, as recommended in various quarters:

Benzin Compound.

Colocynth	g.	5
Insect powder	"	5
Benzin	"	100

Buchheister's Bed-bug Exterminator.

Tobacco	g.	100
Insect powder	"	100
Carbolic acid	"	75
Boric acid	"	25
Oil citronella	"	4

Borosalicylic Solution.

Sodium borosalicylate	g.	20
Water or quassia decoction (5:100)	"	100
Spirit lavender	"	50

Picric Acid Mixture.

Picric acid	g.	5
Stearic acid	"	10
Paraffin	"	10
Oil clove	"	5
Kerosene	"	250

Hager's Bed-bug (Paste) Powder.

Persian insect powder	g.	100
Pellitory	"	100
Carbolic acid	"	5
Oil citronella	"	5
Dilute alcohol		enough

Make a thin paste, which is to be brushed into the cracks.

A heroic remedy is the following, recommended some time ago in the *Scientific American*, viz.: 2 oz. arsenic, ¼ oz. corrosive sublimate, ¼ oz. venetian red, 13 oz. lard. The next is also from the same source, but is indorsed no more than the preceding: 1 oz. corrosive sublimate, 2 oz. muriatic acid, 4 oz. water, 16 oz. decoction of tobacco, 16 oz. oil of turpentine.

Liquid bug exterminators are usually applied with a brush, but a much better method is to employ a machinist's oil can, a fair substitute for which is a bottle, in the perforated cork of which is inserted a quill.

A few words about the bed-bug itself may not be inopportune. The cimex, or more properly acanthia, lectularia belongs to the division of insects known as hemiptera (half-winged), subdivision heteroptera (dissimilar winged), although few people suspect that they are first cousins to the equally vengeful mosquito. Heteroptera are characterized by two dissimilar pair of wings, but in the house-bug these wings are wanting or extremely abortive. Blood is not their sole nourishment, but in case of necessity they content themselves with various vegetable juices; however, they can live a very long time without food, when they become almost transparent. The female is supposed to deposit its eggs, about fifty at a time, in the alternate months of March, May, July and September, the young brood requiring eleven weeks to mature. The vigorous individuals of the September series live through the winter, the greatest cold being unable to kill them.

Aristoteles taught that house-bugs are generated in the perspiration, but they are supposed to have been introduced from India. In the latter country they must surely be luxuriating, since in hospitals a bug-trap is a necessity, this trap being a board full of minute bore-holes which is placed beneath the mattress, whence it is removed from time to time to be scalded.—*The Western Druggist*, December, 1895.